

**RTCA SC-209 ATCRBS/Mode S  
Transponder MOPS  
February 16-17, 2006**

**Cross References between  
DO 181C and ED 73B**

**William A. Thedford  
February 16, 2006**

# Purpose

The purpose of this effort is produce a complete alignment of standard to standard between the two documents.

When completed it will be possible to identify each Shall or Should in a document and its corresponding standard in the other document with a description of the relationship between the two.

A report summarizing these relationships will be produced.

# Sample

## Cross Reference –DO-181C to ED73B

### Cross reference of DO 181C and ED 73B

Thursday, February 16, 2006

Page 1 of 210

10	Similar	Restatement						
DO	SHALL0001	Page:	16	1	ED	SHALL0013	Page:	24
	13							

2.1.1 Airworthiness 2.1 AIRWORTHINESS

The design and manufacture of the equipment shall provide for installation that does not impair the airworthiness of the aircraft. The equipment shall not, under normal or fault conditions, impair the airworthiness of the aircraft in which it is installed.

DO	SHALL0002	Page:	16	ED	Page:
----	-----------	-------	----	----	-------

2.1.2 General Performance

The equipment shall perform its intended function as defined by the manufacturer, and its proper use shall not create a hazard to users of the National Airspace System (NAS).

DO	SHALL0003	Page:	16	ED	Page:
----	-----------	-------	----	----	-------

2.1.2 General Performance

The equipment shall<<SHALL#0002>> perform its intended function as defined by the manufacturer, and its proper use shall not create a hazard to users of the National Airspace System (NAS).

11	Similar	Restatement						
DO	SHALL0004	Page:	17	4	ED	SHALL0014	Page:	24
	14							

2.1.3 Federal Communications Commission Rules TELECOMMUNICATIONS UNION 2.2 INTERNATIONAL

The equipment shall comply with all applicable rules of the Federal Communications Commission Regulations. The equipment shall comply with the relevant International Telecommunications Union Radio Regulations.

12 Identical slight differences - requires reply (DO) vs. demands a reply (ED)

# Structure of the Database

- Table of Shall's and Should's for each Document
  - Index, Shall/Should number, Page, Section Title, Text
- Table of Cross References
  - Index, DO index, ED index, Match Category, and a Note
- Review Check Box

# Details of Development

- A Word Macro is used to
  - Modified each document to include hidden text of the Shall/Should number and a bookmark to the location
  - Create the corresponding table
- Tables are imported into Access.
- An Access Form is used to manually cross reference the table entries
- An Access Report is generated

# What needs to be done

- First Step
  - DO 181D needs to be scanned and linked
    - I will do that
  - Each entry needs to be carefully reviewed and commented upon.
- Second Step
  - Updates to the DO and ED documents need to be linked in and commented upon.

# Questions

- Should the new documents (DO 181D and ED 73C) be added to the cross reference?
- Should there be references to the SARPS
- How should we handle MOPS tests?
- How should we handle misses?
- How should we handle hijack?
- How should we handle multiple hits?
- How should we handle guidance and information, as is in Notes?